WHAT IS CLAIMED:

1. A network comprising:

a credit counter configured to store a value indicating an amount of data eligible to be transmitted from the network device;

a request component configured to generate requests to send data and to receive corresponding grants in response to the requests, the request component decrementing the credit counter when the requests are generated and incrementing the credit counter when grants are received; and

a fake request circuit configured to generate fake requests, the fake requests causing grants to be returned to the request component.

2. The network device of claim 1, further comprising:

an arbiter connected to the request component and to the fake request circuit, the arbiter combining the requests from the request component and the fake request circuit and transmitting the combined requests.

3. The network device of claim 1, wherein the fake request circuit further comprises:

a programmable register for storing a user programmable value;

a timing counter;

a comparator connected to the programmable register and the timing counter, the comparator generating a signal based on the timing counter and the

user programmable value stored in the programmable register, the signal clearing the timing counter;

a pointer register configured to store destination information; and

a fake request vector containing request information based on the value stored by the pointer register.

4. The network device of claim 3, wherein the fake request circuit further comprises:

a vector setting circuit that, in response to the signal, modifies the fake request vector based on the value stored in the pointer register and increments the value stored in the pointer register.

5. The network device of claim 1, further comprising:

a grant pending queue for receiving data to be transmitted and notifying the request component of the arrival of the received data, the request component permitting the grant pending queue to transmit the received data to the switching fabric based on the received grants.

6. The network device of claim 1, wherein the request component delays sending the requests when the credit counter is below a minimum value.

7. The network device of claim 6, wherein the request component does not increase the credit counter beyond a predetermined maximum value.

8. A request controller for metering data flow to a network, the request controller comprising:

a real request vector component configured to generate request messages corresponding to data that is to be transmitted to the network and to receive back grant messages indicating that the data can be transmitted to the network; and

a fake request vector component configured to periodically generate a fake request message to a destination on the network determined by a value in a pointer register, the pointer register being incremented after each fake request message is generated.

9. The request controller of claim 8, wherein the network is a switching fabric.

10. The request controller of claim 8, wherein the fake request vector component generates the fake request messages at intervals determined by a user programmable register.

11. The request controller of claim 10, wherein the real request vector component generates the request messages in response to the data.

12. The request controller of claim 8, wherein the real request vector component further comprises:

a credit counter that is decremented by the real request vector component when the real request vector component generates a request message and incremented by the real request vector component when the real request vector component receives a grant message.

13. The request controller of claim 12, wherein the real request vector component delays generation of request messages when the credit counter is below a predetermined value.

14. The fabric request controller of claim 8, further comprising:

an arbiter connected to the real request vector component and to the fake request vector component, the arbiter combining the request messages from the real request vector component and the fake request vector component and transmitting the combined requests to the network.

15. The request controller of claim 8, wherein the fake request vector component further comprises:

a programmable register for storing a user programmable value;

a timing counter;

a comparator connected to the programmable register and the timing counter, the comparator generating a signal based on the timing counter and the

user programmable value stored in the programmable register, the signal clearing the timing counter;

a pointer register configured to store destination information; and

a fake request vector containing request information based on the value stored by the pointer register.

16. The request controller of claim 15, wherein the fake request vector component further comprises:

a vector setting circuit that, in response to the signal, modifies the fake request vector based on the value stored in the pointer register and increments the value stored in the pointer register.

17. The request controller of claim 8, wherein the fake request vector generates the fake request messages at a rate based on a rate of loss of the network.

18. A method of metering data flow to a network comprising:

receiving at least one data unit for transmission on the network;

generating a request to transmit the data unit when a credit counter contains sufficient credits for the data unit;

decrementing the credit counter in response to generating the request to transmit the data unit;

receiving grant messages from the network that correspond to the transmitted requests, the grant messages indicating that the data unit may be transmitted on the network;

incrementing the credit counter in response to receiving the grant messages; and

periodically generating a fake request that does not correspond to a data unit, the fake request causing grant messages to be received from the network and the credit counter to be incremented in response thereto.

19. The method of claim 18, wherein the network is a switch fabric.

20. The method of claim 18, wherein the fake requests are generated at a rate based on a rate of data loss of the network.

21. The method of claim 18, wherein, when the credit counter does not contain sufficient credits for the data cell, generation of the request to transmit the data unit is delayed until the credit counter has a value above a predetermined value.

22. The method of claim 18, wherein periodically generating the fake request further includes generating the fake request at predetermined times corresponding to a value stored in a user programmable register.

23. The method of claim 18, further comprising:

combining the requests and the fake requests into a combined request; and

transmitting the combined request to the network.

24. A fabric request controller for metering data flow to a switch fabric, the fabric request controller comprising:

means for generating a request vector corresponding to data cells that are to be transmitted to the switch fabric;

means for receiving grant messages indicating that the data cells can be transmitted to the switch fabric;

a fake request generation means for periodically generating a fake request vector to one or more destinations on the switch fabric; and

arbitration means for combining the request vector and the fake request vector and transmitting the combined request to the switch fabric.

25. The fabric request controller of claim 24, wherein the fake request generation means further comprises:

a pointer for storing a destination of the fake request vector, the pointer being periodically incremented.

26. The fabric request controller of claim 24, wherein the fake request generation means further comprises:

a user programmable register for storing a user programmable value that determines an interval of the periodic generation of the fake request vector.

27. The fabric request controller of claim 24, wherein the means for generating a request vector further comprises:

a credit counter for metering the generation of the request vectors.